

REMARKS

Claims 1-11, 13 and 14 are pending in this application. By this Amendment, claims 1, 3-6, 10, 11 and 13 are amended. Claim 12 is canceled without prejudice to or disclaimer of the subject matter recited therein.

I. Allowable Subject Matter

Applicants appreciate the indication of allowable subject matter in claims 7-9, 12 and 13, they being allowable if rewritten in independent form to include all of the features of their base claims and any intervening claims. Applicants submit that the objected-to claims, as well as the rejected claims, are allowable for at least the reasons discussed below.

II. Claim Rejections Under 35 U.S.C. §102

Claims 1, 3 and 4 are rejected under 35 U.S.C. §102(a) as anticipated by U.S. Patent No. 6,317,112 to Handschy et al. ("Handschy"). The rejection is respectfully traversed.

Applicants assert that claims 1, 3 and 4 are amended to incorporate the subject matter of allowable claim 12. Thus, Handschy does not disclose each and every feature recited in the rejected claims. For example, Handschy does not disclose a driving method for driving an electro-optical device having a pixel with a pixel electrode arranged corresponding to an intersection where a scanning line and a data line cross ... and a counter electrode arranged to be opposed to the pixel electrode ... the method comprising *inter alia* feeding a binary signal for controlling the pixel ... the binary signal setting the pixel to the ON state or the OFF state so that a ratio of a period of voltage application time to set the pixels to the ON state to a period of voltage application time to set the pixels to the OFF state in each driving field is responsive to the gray scale level of the pixel, the binary signal being shifted in response to a level of voltage applied to the counter electrode, as recited in claim 1.

Regarding the rejection of claims 3 and 4, Applicants assert that Handschy merely discloses that thread frames are used to display the levels of gray scale. For example, gray

scale level 2 is obtained by turning ON the pixel during only subframe S2: S1 off · S2 on · S3 off. To obtain gray scale level 5, turning ON the pixel during subframes S1 and S3: S1 on · S2 off · S3 on. Therefore, Handschy does not disclose, "setting each pixel to one of an ON state and an OFF state during a first subfield; and controlling the pixel depending on a gray scale level of the pixel to remain in the one of the ON state and the OFF state of the first subfield in subsequent subfields, and when the pixel state changes from one of the ON state and the OFF state of the first subfield into the other of the ON state and the OFF state, maintaining the other state in all of the subsequent subfields of the corresponding driving field." Accordingly, Applicants respectfully request the rejection of claims 1, 3 and 4 under 35 U.S.C. §102(a) be withdrawn.

III. Claim Rejections Under 35 U.S.C. §103(a)

Claims 5, 6, 10, 11 and 14 are rejected under 35 U.S.C. §103(a) as unpatentable over Handschy in view of U.S. Patent No. 6,222,515 to Yamaguchi et al. ("Yamaguchi") and claim 2 is rejected under 35 U.S.C. §103(a) as unpatentable over Handschy in view of Yamaguchi and further in view of U.S. Patent No. 6,040,812 to Lewis. The rejections are respectfully traversed.

Claims 5 and 10 are amended to incorporate the subject matter of allowable claim 12 and therefore are in condition for allowance. Thus, none of the applied references, whether considered alone or in combination, disclose or suggest all of the features recited in the rejected claims. For example, the combination of Handschy and Yamaguchi does not disclose or suggest a driving circuit on an electro-optical device for driving pixels in a plurality of driving fields, comprising a data line, a scanning line, a pixel with a pixel electrode arranged corresponding to an intersection where the scanning line and the data line cross, and having a switching element, an electro-optical material, a storage capacitor, and a counter electrode arranged to be disposed opposed to the pixel electrode ... a data line driving

circuit that supplies the data line with a binary signal ... the binary signal being shifted in response to a level of a voltage applied to the counter electrode.

Regarding claims 6 and 11, neither Handschy nor Yamaguchi, whether considered alone or in combination, disclose or suggest all of the features recited in claims 6 and 11. For example, the combination of references does not disclose or suggest, "A driving circuit of an electro-optical device for driving pixels in a plurality of driving fields, comprising *inter alia* a data line driving circuit that supplies the data line with a binary signal controlling the to be set to one of an ON state and an OFF state during a first subfield, and controlling the pixel as to whether to remain in the one of the ON state and the OFF state during subsequent subfields, and when the pixel state changes from one of the ON state and the OFF state of the first subfield into the other of the ON state and the OFF state, maintaining the other state in all of the subsequent subfields of the corresponding driving field." As stated above, Applicants assert that Handschy merely discloses that thread frames are used to display the levels of gray scale. For example, gray scale level 2 is obtained by turning ON the pixel during only subframe S2: S1 off · S2 on · S3 off. To obtain gray scale level 5, turning ON the pixel during subframes S1 and S3: S1 on · S2 off · S3 on.

Regarding claim 14, Applicants assert that the claim is allowable for at least its dependency on independent claim 11 for the reasons discussed above.

Regarding claim 2, Applicants assert that claim 2 is allowable for at least its dependency on independent claim 1 for the reasons discussed above.


Accordingly, Applicants respectfully request the rejection of claims 2, 5, 6, 10, 11 and 14 be withdrawn.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-11 and 13-14 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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